WACHENDORFF
Automation GmbH & Co. KG



Online Data Sheet

Encoder WDG 40A

www.wachendorff-automation.com/wdg40a

Wachendorff Automation

... systems and encoders

- Complete systems
- Industrial rugged encoders to suit your application
- Standard range and customer versions
- Maximum permissible loads
- 48-hour express production
- Made in Germany
- Worldwide distributor network

IndustrieROBUST

Encoder WDG 40A



- Robust and economical encoder with small dimensions
- Protection to IP67, shaft sealed to IP65
- Optional:
  Protection to IP67 all around
  -40 °C up to +80 °C

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Resolution	
Max. pulses per revolution PPR	up to 2500 PPR

Mechanical Data	
Housing	
Flange	Servo flange
Flange material	aluminum
Housing cap	aluminum, powder coated
Housing	Ø 40 mm
Cam mounting	pitch 51 mm
Shaft(s)	
Shaft material	stainless steel
Starting torque	approx. 0.2 Ncm at ambient temperature
Shaft	Ø 6 mm
Shaft length	L: 11.5 mm
Max. Permissible shaft loading radial	80 N
Max. Permissible shaft loading axial	50 N
Bearings	
Bearings type	2 precision ball bearings
Nominale service life	1 x 10'9 revs. at 100 % rated shaft load 1 x 10'10 revs. at 40 % rated shaft load 1 x 10'11 revs. at 20 % rated shaft load
Max. operating speed	12000 rpm

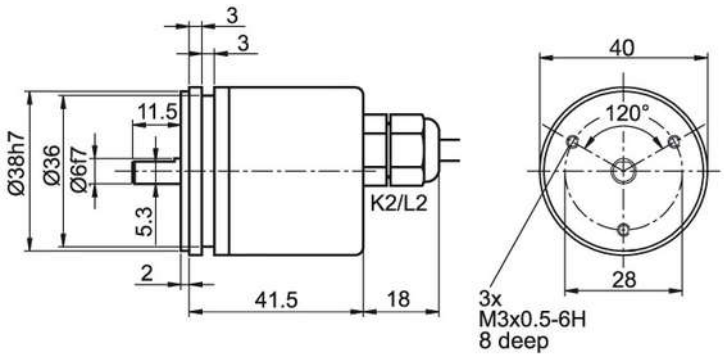
Machinery Directive: basic data safety integrity level	
$MTTF_d$	200 a
Mission time (TM)	25 a
Nominale service life (L10h)	1 x 10'11 revs. at 20 % rated shaft load and 12000 rpm
Diagnostic coverage (DC)	0 %

Electrical Data	
Power supply VDC	10 - 30 VDC
Current consumption	typ. 70 mA
Signal shape	square-wave
Output circuit	HTL
Channels	AB, ABN
Output	push-pull
Load	max. 40 mA / channel
Signal level mA	at 20 mA
Signal level H>	H > Vcc - 2.5 VDC
Signal level L<	L < 2.5 VDC
Output frequency	max. 200 kHz
Circuit protection	yes
Light reserve warning	no

General Data	
Weight	approx. 100 g
Connections	cable or connector outlet
Protection rating (EN 60529)	Housing: IP65, IP67; shaft sealed: IP65; (IP40 for K1)
Operating temperature	-20 °C up to +80 °C
Storage temperature	-30 °C up to +80 °C

More Information
General technical data and safety instructions **http://www.wachendorff-automation.com/gtd**
Options **http://www.wachendorff-automation.com/acc**

Cable connection K2, L2 with 2 m cable



Description		ABN inv. poss.
K2	axial, shield not connected	•

Assignments	
	K2
Circuit	H24
GND	WH
(+) Vcc	BN
A	GN
B	YE
N	GY
Light reserve warning	-
A inv.	-
B inv.	-
N inv.	-
Shield	flex

Example Order No.	Type						Your encoder
WDG 40A	WDG 40A						WDG 40A
	Pulses per revolution PPR:						
10	10, 15, 20, 25, 30, 36, 40, 50, 60, 4, 9, 28, 90, 100, 120, 125, 128, 150, 160, 180, 200, 235, 250, 300, 314, 318, 360, 400, 500, 600, 625, 635, 720, 900, 1000, 1024, 1200, 1250, 1080, 1500, 1800, 2000, 2048						
	Channels:						
ABN	ABN						ABN
	Output circuit						
H24	**Resolution PPR**	**Power supply VDC**	**Output circuit**		**Light reserve warning**	**Order key**	H24
	up to 2500	10 - 30	HTL		-	H24	
	Electrical connections						
K2	**Description**				**ABN inv. poss.**	**Order key**	K2
	Cable: length (2 m standard, WDG 58T: 1 m)						
	axial, shield not connected				•	K2	
	Options						
	Description				**Order key**		
	Without option				Empty		

Example Order No.=	WDG 40A	10	ABN	H24	K2		WDG 40A		ABN	H24	K2		Your encoder



For further information please contact our local distributor.
Here you find a list of our distributors worldwide.
http://www.wachendorff-automation.com/distributors_worldwide.html

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